

Claims

- [c1] A method of preparing enrichment concentrates containing specific organic selenium compounds from selenium enriched garlic.
- [c2] The method of claim 1 involves supercritical extraction with carbon dioxide modified with solvent selected from alcohols, ethyl acetate, water singly or in combination in various proportions, followed by separation of individual organic selenium compounds using chromatographic or other procedures including but not limited to preparative high performance liquid chromatography (HPLC).
- [c3] The organic compounds of claim 1 include Selenoamino acids such as L-Selenomethionine, Se-Methyl-L-selenocysteine and related compounds; as well as Selenoamino acid dipeptides, such as N- γ (L-Glutamyl) L-selenomethionine- N- γ (L-Glutamyl) Se-methyl-L-selenocysteine and related compounds.
- [c4] A method of preparing a bioavailable nutritional supplement composition consisting of natural garlic powder containing 10–2000ppm of elemental selenium in the form of organic selenium compounds of claim 1 com-

bined in defined proportions for optimal health benefits.

- [c5] The composition of claim 4 may be formulated into a capsule, tablet or other oral dosage form, or added to food products; for use as selenium nutritional supplement in humans and animals.
- [c6] The composition of claim 4 is an efficacious antioxidant nutritional supplement in humans and animals.
- [c7] The composition of Claim 4 is a safe nutritional supplement with low toxicity to humans and animals.
- [c8] The composition of claim 4 is useful as nutritional supplement in strengthening immune functions and resistance to diseases in humans and animals.
- [c9] The composition of claim 4 is useful as nutritional supplement in detoxifying regimens in humans and animals.
- [c10] The composition of claim 4 is useful as nutritional supplement facilitating general health maintenance in humans and animals.